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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/597,607	06/20/2000	Sunil K. Rao	RAO-013	5943
7590		10/05/2004	EXAMINER	
Stephen E Baldwin		CHOW, CHARLES CHIANG		
751 Laurel St., PMB 621		ART UNIT		
San Carlos, CA 94070		PAPER NUMBER		
		2685		

DATE MAILED: 10/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/597,607

Applicant(s)

RAO ET AL.

Examiner

Charles C. Chow

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-24 and 26-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-21 and 26-42 is/are allowed.
- 6) ☒ Claim(s) 22-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Detailed Action
(Response to 6/14/2004)

Claim Rejections - 35 USC§ 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 22-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
2. Claims 22-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 22, the phrase "touch screen input and/or a standard keyboard" in line 2-3 of claim 22; the "touch screen input and the standard keyboard" in line 4 of claim 22; the "means from interpreting" in line 5 of claim 22; the "and/or in conjunction with a local or network server" in line 5 of claim 22, renders the claim indefinite because the claim includes elements not actually disclosed, thereby rendering the scope of the claim unascertainable. See MPEP § 2173.05(d). In claim 22, the "and/or" and then, later the "and" for a touch screen input, a standard keyboard, causing the indefinite claimed features, about whether the claimed feature is for both, either, of the touch screen input, standard keyboard. Also the "means from interpreting" is confusing, instead of the interpreting; means. The dependent claims 23-24 are rejected also due to their dependency upon claim 22.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carroll et al.

(US 6,121,960) in view of Lata et al. (US 4,853,888).

Regarding **claim 22**, Carroll et al. (Carroll) teaches an intelligent keyboard system (touch screen system, Fig. 4) comprising a touch screen input (the touch screen keyboard overlay, for key input in col. 3, lines 32-47), standard keyboard (QWERTY keyboard in abstract, col. 2, lines 1-7; col. 9, lines 17-28, Fig. 5), means for reconfiguring the touch screen input, standard keyboard (the keyboard in Fig. 7-8, the reduced size of a full keyboard in col. 9, lines 21-28; col. 9, line 48 to col. 10, line 28), means for reconfiguring the touch screen input and standard keyboard (the software in col. 6, line 63 to col. 7, line 9; the steps 100-155 in Fig. 6, col. 8, lines 32-57), the interpreting means and synthesizing means within the intelligent keyboard (the voice-recognition for voice commands to change the keyboard overlay representation types in col. 11, lines 35-46). Carroll fails to teach the in conjunction with a local or network server. However, Lata et al. (Lata) teaches the local or network server (the host system 10 can be digital computer system to control the overall operation of an aircraft or other complex device in col. 3, lines 60-64), having programmable multifunction keyboard can be reconfigured from the information stored in the database having the selected

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active control page (abstract, Fig. 1-5, Fig. 13-15, Fig. 17-18; col. 2, lines 10-56). Lata teaches the programmable multifunction keyboard for reducing operator error of operating the keyboard (col. 1, line 62 to col. 2, lines 16). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Carroll with Lata's programmable keyboard utilized with host system, such that the user of the keyboard could reducing the key operating error. Regarding claim 23, Carroll teaches the means wherein test is input and output by audible means from interpreting and synthesizing means within the intelligent keyboard (the voice-recognition for voice commands to change the keyboard representation types, overlay, in col. 11, lines 35-46). Lata teaches the host system 10, in conjunction with a local or network server, as shown in claim 22. Regarding claim 24, Carroll taught. the means for reconfiguring the functionality of the touch screen input using the processing power, software application, of the intelligent keyboard, as shown in claim 22 above. Lata taught the reconfiguring of the multifunction keyboard in conjunction with a local network server, host system 10 for aircraft, spacecraft, as shown in claim 22 above.

Allowable Subject Matter

4. The following is an examiner's statement of reasons for allowance:

Applicant has canceled claims 1-12, and amended previously objected claims for overcome the rejection. Claims 13-21, 26-42 are allowable over the prior art of record, the prior arts fail to teach singly, particularly, or in combination, for the subject matter, having beneficial date 12/16/1996 of Continuation-In-Part , for a multifunction communication device including a mobile device or cellular telephone, the device comprising an intelligent keyboard system, the key-board including central portable computer, command and control means for voice

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and data information; the intelligent keyboard including a touch screen display for displaying selected functional text and graphics, a central server; means for communicating between the server and the mobile device including intelligent keyboard system; the mobile device including the intelligent keyboard system providing text, graphics and data from and to the server, the intelligent keyboard system including a touch screen input; means for configuring the touch screen input in a standard alone manner; means for displaying the selected functionality on the touch screen display; means for actuating the input and output functionality on the touch screen display by touch sensitive means; means for storing one or more types of full or partial function touch screen enabled keyboard menus in a look up table within the mobile device including the intelligent keyboard and/or the central server; and means for enabling the functionality of the keyboard menus; the partial function light enabled keyboard, means for dynamically altering and configuring a selected individual key or a group of keys for a different and altered character, icon and function; means for dynamically indicating by light the original or altered key functions; means for altered key or a group of keys to light up with one or more colors, characters and icons to indicate an altered keyboard menu; means for reconfiguring the touch screen input and the standard keyboard by audible means, as shown in the independent claims 13, 19, 22, 42. Claim 32 is allowable because the prior arts fails to teach a mobile device communication system comprising one or more intelligent keyboard, a central server, a local server and a network server; means for enabling the central server as a secure and trusted escrow server; means for maintaining the control of the central server with an independent and mutual trusted third party. The

dependent claims are also allowable due to their dependency upon the independent claims.

The closest patent to Lata et al. (US 4,853,888) teaches programmable multifunction keyboard 16 with plurality of keys 18, keyboard processor 12, Fig. 1-2, the display of legend for key and the dynamically changing keyboard configuration from configuration 70 to configuration 72, or further to configuration 74 and storing the modified keyboard configuration (col. 4, lines 48 to col. 5, lines 24, Fig. 2, Fig. 4-5, Fig. 7, Fig. 17-18), the detection an actuation control means 46 for monitoring the switch for activation and to generate identified switch (col. 17, lines 44-48). Lata et al. fail to teach the keyboard for mobile device or cellular telephone, the intelligent keyboard including central portable computer, and control means for voice and data information, means for communicating between the server and the mobile device; the mobile device including intelligent keyboard system providing text, graphic from and to the server; the means for configuring of a touch screen; means for storing more types of full or partial function touch screen enabled keyboard menus in a look up table within the mobile device including the intelligent keyboard, central server and means for enabling the functionality of the keyboard; the reconfiguring the touch screen input and or a standard keyboard, by audible means; the interpreting and synthesizing means; the means for enabling the central sever as a secure and trusted escrow server and means for collaborating between the mobile device including the intelligent keyboard and central server or a local server or a network server. Other prior arts in below has been considered, but they fail to teach the above claimed features. Buisson et al. (US

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4,844,637) teaches assigning defined configuration for each key of the keyboard having LCD display (abstract), the LCD display for displaying symbol for each key on the flat panel display (abstract, col. 1, lines 7-12). Buisson et al. fail to teach the mobile device, cellular telephone, having a intelligent keyboard and touch screen; the means for communicating between server and the, mobile device; the function touch screen enabled keyboard menus. Bowen (US 5,502,460) teaches a keyboard device for laptop computer having a headset earphone 15 connected to the keyboard (abstract, col. 2, line 65 to col. 3, line 3), the speaker provides the keyboard operator with the audible verbal message in response to key entry or computer transmitted message (col. 10, lines 5-7). Bowen fails to teach the mobile device having an intelligent keyboard for configuring the touch screen; means for storing more types of full function touch screen enabled keyboard menus in a look up table; means for communicating between the server and the mobile device. Frager et al. (US 6,268,806) teaches multimedia computer keyboard with high fidelity speakers integrated into a keyboard (abstract, col. 5, lines 20-29). Frager et al. fail to teach the mobile device having an intelligent keyboard for configuring the touch screen; means for storing more types of full function touch screen enabled keyboard menus in a look up table; means for communicating between the server and the mobile device. Any comments considered necessary by applicant must be submitter no later than the payment of the issue fee, and to avoid processing delays, should preferably accompany the issue fee. Such submission should be clearly labeled "comments on statement of reasons for allowance".

Response to Arguments

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5. Applicant's arguments with respect to claims 22-24 have been considered but are moot in view of the new ground(s) of rejection.

Regarding applicant's amendment, the ground of rejection has been changed by utilizing Carroll et al. (US 6,121,960) and Lata et al. (US 4,853,888). Carroll et al. teaches the reconfiguration of the touch screen overlay keyboard using software application (abstract, col. 7, lines 2-9, Fig. 1-6; steps 100-155 in Fig. 6; col. 3, lines 60-64; col. 6, line 63 to col. 7, line 9; col. 8, lines 32-57; col. 9, lines 21-28; col. 9, line 48 to col. 10, line 28; col. 11, lines 35-46), having different types of keyboard overlay (Fig 7-8), the voice-recognition for voice commands to change the keyboard overlay representation types (in col. 11, lines 35-46). Lata et al. teaches the programmable multifunction keyboard having host system 10 for aircraft having reconfiguration means for reconfiguring keyboard according to each active control page (abstract, Fig. 1-5), the display luminance intensity level control (col. 2, lines 41-56).

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Chow whose telephone number is (703)-306-5615. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban, can be reached at (703)-305-4385. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks Washington, D.C. 20231

or faxed to: (703) 872-9314 (for Technology Center 2600 only)

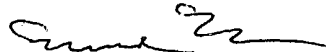
Hand-delivered responses should be brought to Crystal Park 11, 2121 Crystal Drive,

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Arlington, VA, Sixth Floor (Receptionist). Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Charles Chow, C.C.,

September 7, 2004.


EDWARD F. URBAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600